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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,911	03/21/2001	Edward B. Boden	END9 2000 0092 US1	4672

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IBM CORPORATION- DEPT. 917
3605 HIGHWAY 52 NORTH
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EXAMINER

VU, THONG H

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/813,911

Applicant(s)

BODEN ET AL.

Examiner

Thong H Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 32101.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-24 are pending.

Specification

2. Copending information disclosure is required.

Claim Rejections - 35 USC § 101

3. Claims 1-7,9-10,12-14,16-20,22-23 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. (i.e.: the double nested is not described in specification).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8,11,21,24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Ylonenet al [Ylonen, 6,438,612B1].
5. As per claim 11, Ylonen discloses a method for nesting connections between a plurality nodes communication network, said nodes including a client, and internet service provider (ISP), an enterprise gateway, and an internal network [Ylonen, VPN and hosts, virtual routers, firewalls, col 1 lines 40-58], comprising the steps of:

operating said client node call said ISP node [Ylonen, a two-way connection, col 5 lines 39-55, Fig 3];

operating said ISP node to start an outer connection with respect to said gateway node and to return an IP address to said client node [Ylonen, firewall, col 5 lines 39-55; virtual router, col 6 lines 15-44];

operating said client node to send to said gateway node over said outer connection a request to establish a secure nested inner connection [Ylonen, setup secure connection, col 6 lines 57-67; col 9 lines 42-62];

operating said client node and said gateway node to negotiate over said outer connection parameters defining said secure nested inner connection, saving said parameters at said gateway node [Ylonen, negotiate parameter, col 3 lines 15-30; col 4 lines 39-59; inner or outer IP header, col 9 lines 5-30]; and thereafter

operating said client node to start said inner connection [Ylonen, the initialization vector of an ESP transformation, inner or outer IP header, col 9 lines 5-30]; and

operating said gateway node to recognize the start said inner connection and to link said inner connection said outer connection [Ylonen, negotiate a special transformation, col 9 lines 5-30].

6. As per claim 8, Ylonen discloses a method for operating a first one plurality of nodes in a communications network, comprising the steps of:

establishing at said first node a for an outer connection and an least one second node coincident endpoint inner connection with at said network [Ylonnen, an IP option in either an Inner or an Outer IP header, col 9 lines 5-30];

responsive to starting communication of traffic over said connections,
establishing a link from said inner connection to said outer connection [Ylonen, negotiate parameter, col 3 lines 15-30; col 4 lines 39-59]; and

responsive to said links, selectively **encapsulating** said traffic outer connection for transfer to said second node or decapsulating said traffic from said outer connection for receipt at said first node [Ylonnen, encrypt and decrypt, col 9 lines 5-30].

7. Claims 21,24 contain the similar limitations set forth of method claim 8.

Therefore, claims 21,24 are rejected for the similar rationale set forth in claim 8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-7,9-10,12-14,16-20,22-23 are rejected under 35 U.S.C. § 103 as being unpatentable over Ylonenet al [Ylonen, 6,438,612B1] in view of Rao et al [Rao 6,674,756 B1].

9. As per claim 15, Ylonen discloses a system for nesting connections between a plurality nodes a communication network, comprising:

first node on an outer connection for receiving request from a second node to establish a coincident endpoint for nesting an inner connection within said outer connection [Ylonen, VPN and hosts, virtual routers, firewalls, col 1 lines 40-58];

said first and second nodes negotiating over said outer connection parameters defining said inner connection [Ylonen, negotiate parameter, col 3 lines 15-30; col 4 lines 39-59; inner or outer IP header, col 9 lines 5-30]; and thereafter

However Ylonen does not explicitly detail said first node being responsive to communication occurring said inner connection linking said outer connection for selectively receiving sending said communication **double** nested (i.e.: two encapsulations) on said outer connection.

It was well-known in the VPN art that adding the media specific layer two encapsulation headers would provide a private, secure environment for multiple sharing subscribers [Rao et al, two encapsulation headers, col 11 lines 2; Sakamoto et al , two encapsulation methods, col 5 line 65].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the double nested or two encapsulation header as taught by Rao into the Ylonen's apparatus in order to utilize the VPN environment. Doing so would provide would provide a private, secure environment for multiple sharing subscribers.

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10. As per claims 2-3,9,16-17 Ylonen-Rao disclose said inner connection being a secure connection or an IPsec connection [Ylonen, IPsec, col 5 line 55-col 6 line 5;col 7 line 17-col 8 line 67].

11. As per claims 4,7,10,18, Ylonen-Rao disclose a Layer Tunnel Protocol (L2TP) connection for tunneling packets across said communication network [Ylonen, L2TP, col 2 lines 53-59].

12. As per claim 6, Ylonen-Rao disclose establishing a local coincident endpoint of said inner and outer connections at said gateway [Ylonen, virtual router, col 7 lines 45-65].

13. As per claim 12, Ylonen-Rao disclose sending outbound traffic in said inner connection **double** nested in said outer connection [Rao et al, two encapsulation headers, col 11 lines 2].

14. As per claim 13, Ylonen-Rao disclose operating said ISP node to decapsulate (i.e.: decrypt) said outer connection; and operating said client node to decapsulate said inner connection [Ylonen, decrypt, col 9 lines 5-30].

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15. As per claim 14, Ylonen-Rao disclose tunneling packets across said communication network using Layer 2 Tunnel Protocol (L2TP) [Ylonen, L2TP, col 2 lines 53-59].

16. Claims 1,5,19,20,22,23 contain the similar limitations set forth of apparatus claim 15. Therefore, claims 1,5,19,20,22,23 are rejected for the similar rationale set forth in claim 15.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.

The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Harvey*, can be reached at (703) 305-9705.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final (703) 746-7238

Official: (703) 746-7239

Non-Official (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Thong Vu
Patent Examiner
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